TITLE: "MEASUREMENT OF SERUM CHOLESTEROL LEVELS AS A PREDICTOR OF PRETERM DELIVERY"

ABSTRACT

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AIMS AND OBJECTIVES:

To determine the association between elevated Serum C-Reactive Protein levels in Early second trimester of Pregnancy & Pre-term Births

METHODOLOGY

STUDY CENTRE : Egmore Maternity Hospital,Chennnai-8

DURATION OF STUDY : 10 months

STUDY DESIGN : Prospective case control study

SAMPLE SIZE : 200

INCLUSION CRITERIA

All cases of singleton gestation (confirmed by early second trimester ultrasound),

gestational age between 14-20 weeks (by LMP and confirmed by ultrasound)

Intact amniotic membranes.

EXCLUSION CRITERIA

Multiple gestation,

Pre-eclampsia

GDM

Polyhydramnios

History of Pre-term labor in prior pregnancy

Medical conditions like SLE,Rheumatoid arthritis,H/O recent bacterial or viral infections,Heart disease

Gestational age less than 13 weeks or more than 20 completed weeks.

Women not sure of LMP and having a dating scan.

PROCEDURE:

Patient will be selected as per above said inclusion and exclusion criteria . In this study, 200 pregnant women of singleton pregnancy between the gestational age of 14 to 20 weeks were enrolled . After detailed history taking , maternal serum CRP levels were estimated by ELISA method.These women were divided into two groups according to CRP levels .Incidence of preterm delivery, mode of delivery was noted in both the groups.The incidence of neonatal morbidity was compared in both groups to ascertain if measured maternal CRP levels has any association with neonatal morbidity.

RESULT:

In this study 42 patients (21%) had preterm delivery.Of these 30 patients had CRP >1.5mg/dl; 12 had CRP < 1.5 mg/dl.In CRP increased group , 30patients (57.7%) delivered preterm, 22 patients(42.3%) had term .It was found that increased levels of maternal serum CRP in early pregnancy were associated with increased incidence of preterm delivery.According to

this study if the CRP value 1.5 the sensitivity will be 71.4% with specificity will be 86% to predict the preterm.Neonatal complications like respiratory distress syndrome has no significant association with CRP levels.

Of the total 42 preterm babies, 1 from group A (8.1%) and 8 from group B(26.6%) developed Sepsis and were treated with IV antibiotics.There was statistical significant difference in development of neonatal sepsis between preterm infants of 2 groups with infants born to increased CRP group there is increased chance of neonatal sepsis.

CONCLUSION

Elevated maternal serum CRP concentration in early second trimester was associated with increased incidence of preterm delivery and showed a positive correlation with neonatal sepsis.